

FACTORS ASSOCIATED WITH PATIENT'S CARE DURING CONSULTATION IN MINISTRY OF HEALTH FACILITIES, JEDDAH CITY, SAUDI ARABIA

Omar M. Balbaid, FFCM (KFU), Kasim M. Al-Dawood, FFCM (KFU)*

Joint Programme of Family & Community Medicine, Jeddah and Department of Family & Community Medicine, College of Medicine and Medical Sciences, King Faisal University, Dammam, Saudi Arabia

الأهداف : تقييم العوامل المؤثرة في الرعاية وكذلك رضا المرضى أثناء المقابلة الطبية.
خطة العمل : تم إجراء دراسة مقطعية وذلك باستخدام إستبانة على عينة عشوائية من المراجعين للعيادات الخارجية .
مكان الدراسة : العيادات الخارجية لمستشفى الملك فهد والملك عبد العزيز بالإضافة إلى (١١) مركز رعاية صحية أولية بمدينة جدة .
الأشخاص المعرضين للدراسة : عينة عشوائية تتكون من ٣٤٠ من الأفراد المراجعين لعيادات المراكز الصحية والمستشفيات .
الطريقة : تم إجراء مقابلات للأفراد باستخدام استمارة البحث ، أشتملت المعلومات التي تم جمعها على معلومات أساسية بالإضافة إلى آراء المراجعين بالنسبة لبعض أوجه العناية الصحية بالعيادات ورضاهم عن الرعاية المقدمة لهم ، وكانت درجة الثبات المقدرة للإستمارة ٩٢٪ .
النتائج : كان معدل رضا المراجعين في جميع المنشآت ٧٦.٥٪ بدون فروقات أحصائية هامة بين المستشفيات ومراكز الرعاية الصحية الأولية . أظهرت الدراسة وجود جوانب تفتقد إلى الرعاية الجيدة مثال على ذلك : قصر المقابلة وإجراء فحص سريري غير متكامل للمرضى .
تطرقت الدراسة كذلك إلى جوانب لها إرتباط بمعدل زمن المقابلة الطبية ودرجة إكمال الفحص السريري .
الإستنتاجات : أظهرت الدراسة مستوى دون المطلوب بالنسبة لرضا المراجعين في جميع المنشآت الصحية التي تمت دراستها . خلصت الدراسة إلى وجوب تحسين الجوانب ذات العلاقة بالرعاية الصحية للمرضى . تم تضمين بعض النصائح العملية بهذا الخصوص .
الكلمات المرجعية : المقابلة الطبية ، الرضا ، رعاية المرضى ، العيادات الخارجية ، المملكة العربية السعودية .

Objective: To assess the factors affecting health care and patient's satisfaction during the consultation.

Design: A cross-sectional study was conducted using a structured questionnaire form on a random sample of outpatient clinic attendants.

Setting: The Outpatient Department clinics at King Fahad and King Abdulaziz Hospital in addition to eleven Primary Health Care Centers (PHCCs) in Jeddah.

Subjects: A sample of 340 subjects attending clinics of two hospitals and eleven PHCCs.

Correspondence to:

Dr. Kasim M. Al-Dawood, P.O. Box 2290, Al-Khobar 31952, Saudi Arabia

Methods: Direct interviewing of subjects using a structured questionnaire was carried out. Information collected was basic demographic data regarding satisfaction with aspects of outpatient health care.

Results: The rate of patients' satisfaction in all facilities was 76.5% with no significant variation between hospitals and Primary Health Care Centers. The study showed aspects of poor patient care, such as short consultation time and incomplete physical examination of patients. Other factors correlated with mean consultation time and completeness of physical examination were stressed.

Conclusion: There was a low rate of patients' satisfaction in all Ministry of Health (MOH) facilities studied. Aspects related to patient care need to be improved. Practical recommendations on this were stressed.

Key Words: Consultation, satisfaction, patient care, outpatient, Saudi Arabia.

INTRODUCTION

The satisfaction of the consumer of health service is recognized as a powerful tool for quality assurance,¹⁻³ since more emphasis is placed on outcome than process and structure evaluation.⁴ To be effective, the quality assurance should be evaluative and continuous.^{4,5} The health service provided to patients in the Kingdom of Saudi Arabia (KSA) has improved a great deal over the past two decades.^{4,6} Nevertheless, to consolidate what has been achieved, there is a need for continuous monitoring of both quantity and quality of the service.⁶ Consultation plays an important role in determining both the quality of care and patients' satisfaction.

Studies have been carried out on the subject of the consultation and doctor-patient encounter in Saudi primary, secondary and tertiary care establishments.^{4,6-10} However, most of these studies are limited and their results are unique to the facility studied. Indeed, almost all of them lack the comparison of the different levels of health care facilities. The objective of this study was to assess factors including consultation time, completeness of physical examination, laboratory investigations, prescriptions and patients' satisfaction with the

consultation provided at the Ministry of Health Hospitals and Primary Health Care Centers (PHCCs) in Jeddah. We hope that the results will help the concerned planners, administrators and decision makers at the Ministry of Health (MOH) to rectify any short-comings in patients' satisfaction and care.

METHODS

This cross-sectional study was conducted in 11 PHCCs and the outpatient clinics of King Fahad, and King Abdulaziz hospitals in Jeddah, Saudi Arabia. These two hospitals were randomly selected from a total of 8 MOH hospitals in Jeddah. The eleven PHCCs (30.6%) were randomly selected from the 36 PHCCs in Jeddah. Their distribution was as follows: (1) Three from the 11 PHCCs serving the North Eastern district, (2) Two from the 8 PHCCs serving the North Western district, (3) Three from the 11 PHCCs serving the South Eastern district, (4) One from the six PHCCs serving the South Western districts and (5) Two from the 8 PHCCs serving the Jeddah city center district.

The selection of these health facilities was planned in accordance with the minimum requirements of ten PHCCs recom-

mended by the International Network of Rational Use of Drugs (INRUD) when evaluating patient care.¹¹ At the hospitals, five outpatient speciality clinics were randomly selected. Twelve patients were subsequently randomly selected from each clinic at the two hospitals, giving a total sample of 120 patients.

Twenty patients were selected randomly from each PHCC, giving a total of 220 patients. Each patient was registered and interviewed on leaving the clinic by one of the investigators using a pre-tested and pre-coded questionnaire and a checklist designed for the purpose. Patients' medical files were also reviewed to collect the necessary data. Information included basic demographic characteristics, monthly income in Saudi Riyals, and patient type: whether new or for follow-up. The type of physical examination (none, partial, or complete) offered to patients was also noted. Partial (minimum) physical examination was defined as only recording body temperature and pulse rate.¹¹ Information obtained from the patient included the degree of satisfaction on care provided in the facility, laboratory investigations requested, prescription and number of drugs on the prescription. Data about physicians included age, Arabic speaking or not, gender, nationality (non-Saudi, Saudi), professional status (consultant, specialist, resident), and length of experience. The time from each patient entering to leaving the clinic was noted and the overall consultation time was computed.

A reliability test was conducted on 20% of the sample by telephone or personal encounters 8-12 days after the initial survey. The test indicated a reliability of 92%.

Data were entered and analyzed on a personal computer using Epi-Info version 5 and SPSS-PC+ statistical packages.^{12,13} Chi-squared test was used to assess the

level of significance of the differences between proportions. Multiple regression was used to assess the factors predicting patient care in the health facilities. The outcome (dependent) variables analyzed (one at a time) were mean consultation time at PHCCs and hospitals, and completeness of physical examination (coded 1 = none, 2 = partial, 3 = complete) at both PHCCs and hospitals. The independent factors were patient's age, education, gender (coded as 1 = male, 2 = female), nationality (1 = non-Saudi, 2 = Saudi), patient type, mean consultation time, type of physical examination, and degree of patient's satisfaction (0 = not satisfied, 1 = satisfied). Other variables included were: investigations, prescriptions, number of drugs prescribed, physician's age, mother tongue (1 = non-Arabic, 2 = Arabic), gender (1 = male, 2 = female), nationality (1 = non-Saudi, 2 = Saudi), physician's status (1 = consultant, 2 = specialist, 3 = resident), experience (1 = 0-5 years, 2 = more than 5-10 years, 3 = more than 10 years), and overall mean consultation time.

RESULTS

1. Sample characteristics

Saudis represented 39.1% of the total sample. Slightly more than half (51.5%) of the patients were females. Under a third (30%) of the patients received no medication. Slightly less than half of the sample (47.1%) were illiterates, while only 15.6% had college degrees. Of the 59 physicians interviewed, 25 (42.4%) were males and 21 (35.6%) were Saudis. Eight (13.6%) of all physicians were consultants working in hospitals, 11 (18.6%) were specialists, and 40 (67.8%) were residents. There was a significant inverse correlation between mean consultation time and number of drugs prescribed during consultation ($r = 0.15$, $p < 0.01$).

Table 1: Aspects of patient care at health facilities

Variable	All Facilities	PHC	Hospitals	p-value
Number of patients	340	220 (65%)	120 (35%)	-
Physical examination				
Complete	165 (48.5%)	103 (46.8%)	62 (51.7%)	-
Partial (Blood pressure, pulse rate)	93 (27.4%)	68 (30.9%)	25 (20.8%)	NS*
No physical examination	82 (24.1%)	49 (22.3%)	33 (27.5%)	-
Mean consultation time in minutes (Mean \pm Standard Error)	6.88 \pm 0.2	5.94 \pm 0.2	8.62 \pm 0.3	< 0.05
General degree of patient's satisfaction	260 (76.5%)	161 (73.2%)	99 (82.5%)	NS
Laboratory investigations ordered	311 (91%)	195 (88.6%)	116 (97%)	NS
Prescriptions issued	238 (70%)	147 (66.8%)	91 (75.8%)	NS

*NS = Not significant

Table 2: Multiple regression analysis of factors affecting patient care

Factor/Variable(s)	R2	Regression Coefficient	p-value
Mean consultation time (PHCCs)			
Number of drugs/prescription	0.5	-0.2	< 0.028
Type of physical examination		2.1	< 0.0001
Mean consultation time (hospitals)			
Physician's years of experience	0.5	-1.4	< 0.04
Patient's gender		1.1	< 0.01
Type of physical examination		2.3	< 0.0001
Physician's gender		-10.9	< 0.0001
Physician's language		6.5	< 0.038
Physician's status		5.5	< 0.005
Completeness of physical exam. (PHCCs)			
Degree of patient's satisfaction	0.5	0.2	< 0.0035
Consultation time		0.2	< 0.0001
Completeness of physical exam. (hospitals)			
Patient's age	0.4	-0.009	< 0.0169
Physician's gender		0.5	< 0.0002
Consultation time		0.1	< 0.0001
Patient's satisfaction		0.5	< 0.0007

2. Primary Health Care Clinics

Between the PHCCs the mean (\pm SE) consultation time showed a significant variation ranging from 0.5 \pm 0.1 minutes to 7.8 \pm 0.3 minutes ($p < 0.04$). The degree of patient's satisfaction was found to be related to the completeness of the physical examination offered ($p < 0.0001$). The degree of completeness of physical examination offered at the PHC centres was not significantly different one from another (p

< 0.49), neither was the level of patients' satisfaction ($P < 0.5$)(Table 1). Other significant multiple logistic regression analysis results are summarized in Table 2.

3. Hospital Clinics

Similar to the findings at all facilities, the mean consultation time at hospitals was significantly inversely correlated with the number of drugs prescribed per consultation ($r = 0.21$, $p < 0.05$). However, no

significant variation was found between the two hospitals ($p < 0.05$). Regarding patient's satisfaction no differences were found among the hospitals' clinics ($p < 0.3$) (Table 1).

DISCUSSION

The patients' sample was almost equally represented by both genders. Non-Saudi patients constituted the majority of the sample, a fact that may reflect the size of this group of patients attending MOH facilities.

A. Consultation time

The significant variation of mean consultation time between PHCCs (5.94 ± 0.2 minutes) and hospitals' clinics (8.62 ± 0.3 minutes) in this study could be explained by the system being followed at these facilities. PHCCs are essentially walk-in clinics and physicians, therefore, see a large number of patients. Consequently, consultations are brief. This has been shown to be true in both developing^{14,15} and developed countries¹⁶⁻¹⁸ with some exceptions.¹⁹ However, the mean consultation time in PHCCs in this study is much better than what was reported earlier from rural PHCCs in Saudi Arabia^{7,9} and is close to that reported by Al-Shamari in 1991.⁶

On the other hand, physicians working at hospitals do see their patients, who are limited in number, according to an appointment system. Even with this, the mean consultation time was less than 10 minutes. Generally, studies have shown that consultations of less than 10 minutes duration have little impact on health promotion.²⁰

An alternative explanation for short consultation may be related to the practice methods of physicians in Saudi Arabia. In some hospitals and PHCCs, physicians may

not offer the basic patient's management during consultation even if the patient is the last on the list.

In the present study, the mean consultation time at PHCCs was inversely correlated with the number of drugs prescribed, and this supports similar findings reported by other investigators.¹⁹ At hospitals, mean consultation time was inversely correlated with increased experience and female doctors but positively correlated with the physician's status. Others have reported the same results earlier.^{21,22} The gender of female patients in our study was shown to correlate positively with mean consultation time. This was reported in studies both from Saudi Arabia and from Western countries, indicating that female patients demand more elaborate explanation from physicians than males.^{10,23} Patients' level of education was not shown to affect the mean length of consultation as shown by others.^{24,25} Differences in socio-cultural backgrounds of the two communities may have led to this variation. Arabic language speaking physicians had, on average, longer consultation time. This might show the effect of cultural background of patients on physicians. This is especially so in the community from which this sample with an illiteracy rate of 47% was drawn. It is known that physicians communicate better if they have adequate consultation time.⁶ Other research has shown that patient satisfaction is well related to good doctor-patient communication.²⁶⁻²⁸

B. Physical Examination

At all facilities, the degree of completeness of physical examination correlated positively with the degree of patient's satisfaction. This is in agreement with other researchers.² Generally, complete physical examinations performed in this study were much fewer than those reported from other developing countries.¹⁹

C. Laboratory investigations and prescriptions

In this study, prescriptions were issued to 70% of the patients, while laboratory investigations were requested for 91% of the sample. The rate of prescriptions issued at PHCCs in this study (66.8%) was less than that reported from similar studies in Saudi Arabia,^{6,29} and elsewhere.^{14,19} At hospitals, the rates of both prescriptions issued (75.8%) and laboratory investigations requested (97%) were much more than what was previously reported from Saudi Arabia.¹⁰

D. Patients' satisfaction

The finding of a 76.5% rate of patients' satisfaction in this study in all facilities with no significant variations among them supports that of similar studies from Saudi Arabia.^{4,10} The figures reported for inpatients ranged from 74% - 93%⁴ and for outpatients from 66.4% - 95.2%.¹⁰ However, our rate was far below the expected figure.³⁰ This indicates the need for remedial action.

In conclusion, the results of this study revealed a low rate of patient's satisfaction in all the MOH facilities studied. Certain aspects relating to patient care need to be improved. A reduction in the number of patients at hospital outpatient clinics and the introduction of an appointment system at least for follow-up patients at PHCCs should be attempted. Arabic-speaking physicians should be preferred to work at these health facilities in order to improve patient-doctor communication. The provision of more time for consultation and complete physical examination, as well as better communication with patients, will definitely improve patients' satisfaction and the outcome of consultation. Moreover, there is a need to revise the current practice and training of our physicians so that they can master the necessary consultation

skills.^{31,32} Quality assurance departments at these health facilities should monitor this process through the continuous auditing of patients' care. Therefore, the need for studies like these to evaluate the success and the impact of any reform measures undertaken will remain.

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